REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 20-29 will be active in the application subsequent to entry of this Amendment. All of these claims are directed to elected subject matter.

Claims 13-15, directed to non-elected subject matter, have been canceled.

Claims 1-6 have been canceled, this action being without disclaimer or prejudice. The claims have been revised and new claim 20, the new independent claim, is based on previous claim 7. The order of the various dependent claims has been adjusted so it is convenient to provide an entire new set of claims.

With the withdrawal of claims 1-6 the rejections stated in items 3-7 of the Official Action are no longer pertinent and attention is now given to the examiner's comments and the rejections stated in items 8-10 of the Official Action.

The examiner argues that previous claim 7, which relates to method of production of solid oxide fuel cell having an anode, cathode and electrolyte would be obvious from combining the disclosures of Jacobson et al and Zheng.

Such a combination would nor be obvious. As specifically taught in the specification, benefits of using the claimed nano-sized particle printing steps to construct solid oxide fuel cell components are that it allows for improved production of interconnects, reduces mismatches between thermal expansion rates at different loadings in separate layers and reduces ohmic losses from the electrolyte. Accordingly the inventors of the current application have developed a particularly advantageous and beneficial new method of manufacturing solid oxide fuel cell components. None of these advantages are discussed in Jacobsen (or indeed Zheng) nor would they be apparent to the person of ordinary skill in the art from these documents and common general knowledge, except with the benefit of hindsight.

It would not be obvious to solve the problems of ohmic losses, or thermal mismatching, or the existing problems with building interconnects with solid oxide fuel cells by using such nano-sized particle printing methods. There is no teaching in Jacobsen, Zheng or elsewhere that using such methods or the methods in Jacobson for the purpose of fuel cell components would provide such benefits Additionally there is no hint or suggestion that there will be any other advantages specific to fuel cells that would lead the skilled person to combine the teachings of

Jacobson and Zheng. Indeed based on the disclosures of these documents it would not be obvious to the skilled person that such a printing method would even be suitable for use to construct fuel cell components.

Zheng relates to providing a design for a monolithic fuel cell made of a single unit rather than being created from stacks of component fuel cells. It would therefore not be obvious to use adapt Zheng to use a technique that had not been demonstrated to be suitable for generating such a large monolithic unit. Further there would be no reason to believe that the "rapid prototyping" techniques that are essential to Zheng would be easily compatible with the techniques of Jacobson. In particular Zheng in paragraph 78 states that use of slurry is preferred as it is scaleable for the extremely high fabrication speed desired and there is no teaching in Jacobson that printing nano-sized particle loaded inks would be similarly scaleable to extremely high fabrication speeds. Accordingly there would be no reason to stop producing layers by using slurry and use the teachings of Jacobsen instead.

There is no teaching in Jacobson that nano-sized particles loaded printing could be used to form cathodes, anodes and electrolytes.

For the above reasons it is respectfully submitted that the claims of this application define inventive subject matter. Reconsideration and allowance are solicited. Should the examiner require further information, please contact the undersigned.

Respectfully submitted,

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